

A# 03027149.8
EP 1424310 A2
26.11.2003

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NO restriction.

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414 271-7590

We claim:

1. A method for producing tetrahydroborates by using borates as chemical raw material, comprising:
 - 5 reacting a mixture containing borate and alkali earth metal by heating in a hydrogen atmosphere under pressure below a reaction equilibrium pressure where hydride of the alkali earth metal exists in stable.
 2. The method for producing tetrahydroborates as set forth in claim 1 wherein the alkali earth metal is magnesium.
 3. The method for producing tetrahydroborates as set forth in claim 1 10 wherein the mixture contains hydrogenating catalyst to adsorb hydrogen.
 4. The method for producing tetrahydroborates as set forth in claim 1 wherein the mixture is in form of fine powder.
 5. The method for producing tetrahydroborates as set forth in claim 4 15 wherein the borate and the alkali earth metal respectively is pulverized of an average particle diameter of maximum 100µm.
 6. The method for producing tetrahydroborates as set forth in claim 5 wherein the average particle diameters of both borate and alkali earth metal are generally the same.
 7. The method for producing tetrahydroborates as set forth in claim 1 20 wherein coke oven gas is used as a source of hydrogen.
 8. The method for producing tetrahydroborates as set forth in claim 1 wherein the mixture is provided with hydrogen atmosphere at temperature of maximum 450°C and heated to temperature of 500 to 650°C.
 9. The method for producing tetrahydroborates as set forth in claim 1 25 wherein the tetrahydroborate produced is or include any one of a group consisting of sodium borohydride (NaBH_4), lithium borohydride (LiBH_4) and potassium borohydride (KBH_4).

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